

SYN 09/980419

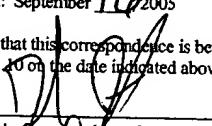
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dohring      Examiner: Watkins  
Serial No.: 09/980419      Group Art Unit: 2940  
Filed: March 1, 2002      Docket No.: 616.95USWO  
Title: PAPER FOR PRODUCING PANELS AND PAPER-MAKING METHOD

**CERTIFICATE UNDER 37 CFR 1.10:**  
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By: 

Name: Dieter Dohring

DECLARATION OF DIETER DOHRING

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

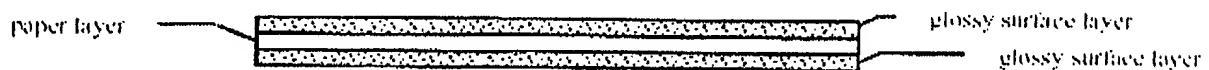
I, Dieter Dohring, declare as follows:

I am one of the inventors of the above-referenced application. It is my understanding that the Examiner has rejected claims 1-18, and 19-30 as obvious over Jaisle (U.S. Patent No. 4,473,613) in view of Moroff (U.S. Patent No. 3,853,594). Sample papers are provided herewith in order to demonstrate the differences in the properties of the papers produced by the methods of Jaisle and Moroff; and the methods of the invention.

Paper 1, found at Exhibit A, was made according to Moroff et al. and Jaisle et al. This paper is commercially available, and is called a "finish foil". In order to manufacture a finish foil, the paper is impregnated with an acrylic resin, by depositing the acrylic resin on the paper. One method of doing this is to pass the paper through a bath containing an acrylic resin. Please note that neither Moroff nor Jaisle teach pressing an acrylic resin into the paper. Column 2, lines 55 - 56 of Jaisle clearly teaches impregnating a paper with an acrylic resin. The same is true for Moroff. According to example 1 and 2 of Moroff, an untreated paper is passed through an

impregnation bath comprising an acrylate dispersion. There is no indication of pressing the acrylic dispersion into the paper.

As seen from the finish foil in Exhibit A, these methods provide a paper with a very glossy surface. However, because the acrylic dispersion was simply placed on the surface of the paper, the acrylic compound is a "second layer", since there is a clear difference between the top and the bottom of the finish foil. The bottom of the finish foil looks like regular paper; and the top looks like a glossy layer made of artificial material. Of course, both the bottom and the top surface of the paper may be impregnated with the acrylic resin. In this case, there will be a third layer, which is represented by the following picture:



The most important disadvantage of the finish foil is that there are at least two layers. If a further layer, composed of resin and abrasive particles, has to be put on the top of this finish foil and the resulting system has to be dried, the finish foil could be easily split.

A further disadvantage is that the bonding between the glossy surface of the finish foil and an abrasive layer would be weak since the surface of a finish foil is very smooth. A rough paper surface is advantageous in order to obtain a strong bonding between the paper and an abrasive layer.

Yet another disadvantage of a finish foil is that the foil is relatively thick since there are at least two layers. Please keep in mind that Jaisle only teaches that the basis paper have basis weight ranging from about 16-160 g/m<sup>2</sup> (column 4, lines 39 - 40). Jaisle does not teach that the overall weight of the impregnated paper is 16-160 g/m<sup>2</sup>. These disadvantages of the finish foil explain why no producer in the world is using a finish foil in order to manufacture a decorative paper containing an abrasive layer for laminated floor panels.

Paper 2, found at Exhibit B, was made according to the invention. From looking at paper 2, it can be seen that it does not include two separate layers. There is no second glossy surface layer on either side of the paper. The acrylic resin is within the paper itself, instead of on the surface thereof, as it was in Jaisle or Moroff. Since there is no separate glossy layer, paper 2 is thin compared with the finish foil. It is not possible to produce a finish foil that is as thin as paper 2. The weight of paper 2, which is filled with acrylic resin is 30 g/m<sup>2</sup>. As mentioned

previously, it is not possible to provide a finish foil having a weight of 30 g/m<sup>2</sup>. The basis weight of the paper without the acrylic resin may have a weight of 30 g/m<sup>2</sup>, but once the acrylic resin is coated on the paper, the weight will be much higher. Since paper 2 has only "one" layer, bonding of an abrasive layer on paper 2 is much better than it is with a finish foil. Further, since the surface of paper 2 is relatively rough, a strong bonding exists between an abrasive layer and the top of paper 2.

Paper 3, found at Exhibit C, is an example of a decorative paper that includes an abrasive layer in combination with paper 2. The resulting decorative paper, paper 3, is very thin. To my knowledge, there is no other producer in the world that is able to produce such a thin decorative paper that has abrasive particles on the top. Furthermore, it is possible to handle this paper like a conventional decorative paper which would be very thick compared to paper 3 produced according to the invention.

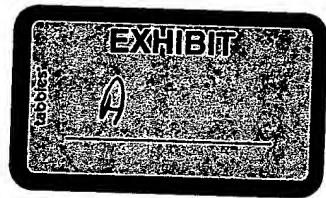
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title XVIII of the United States Code and that willful false statements may jeopardize the validity of this Application for Patent or any patent issuing thereon.

Dated: 25.8.05

  
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Dieter Döhring



## Exhibit A

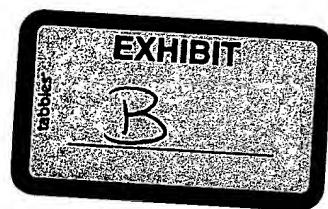




## Exhibit B

paper 2

1



## Exhibit C

